

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2001244511 A

(43) Date of publication of application: 07.09.01

(51) Int. Cl

H01L 39/24

(21) Application number: 2000055974

(22) Date of filing: 28.02.00

(71) Applicant: HITACHI LTD INTERNATL SUPERCONDUCTIVITY TECHNOLOGY CENTER

(72) Inventor: SAOTOME ETSUHISA  
TAKAGI KAZUMASA  
FUKAZAWA TOKUMI  
TARUYA YOSHINOBU  
SAITO KAZUO  
TSUKAMOTO AKIRA

(54) METHOD OF MANUFACTURING JOSEPHSON DEVICE HAVING RAMP EDGE STRUCTURE AND FILM-FORMING DEVICE

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a ramp edge type Josephson device having fewer variations in device parameter.

SOLUTION: Since two-step cleaning is carried out in different conditions to remove a deteriorated layer on a ramp edge surface, a flat and even ramp edge surface is formed. Since the ramp edge surface undergoes ion irradiation and a heat treatment, a surface modified layer is formed. As for thermal conduction to a substrate in the heat treatment, thermal conduction in a vapor phase is used to equalize temperature distribution in the substrate.

COPYRIGHT: (C)2001,JPO

